

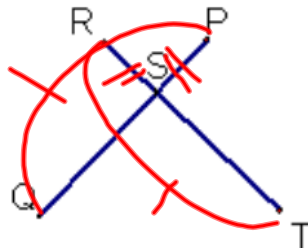
2-7 Proving Segment Relationships

2-8 Proving Angle Relationships

## Continued

Oct 10-9:47 AM

Example 1

Given:  $RT = PQ$ ;  $RS = PS$ Prove:  $ST = SQ$ 

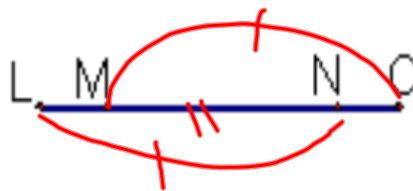
Statements

Reasons

① $RT = PQ$ $RS = PS$	① Given
② $RT = RS + ST$ $PQ = PS + SQ$	② Segm. Add Post.
③ $RS + ST = PS + SQ$	③ Subst.
④ $ST = SQ$	④ Subtr.

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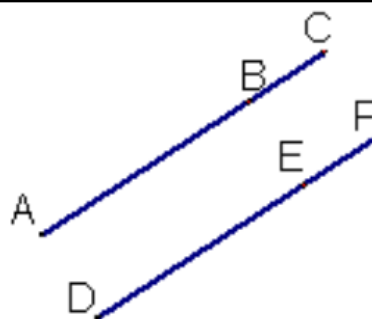
Example 2

Given:  $LN = MO$ Prove:  $LM = NO$ 

Statements	Reasons
① $LN = MO$	① Given
② $LN = LM + MN$ $MO = MN + NO$	② Segm. + Post.
③ $LM + MN = MN + NO$	③ Subst.
④ $MN = MN$	④ Reflexive
⑤ $LM = NO$	⑤ Subtr.

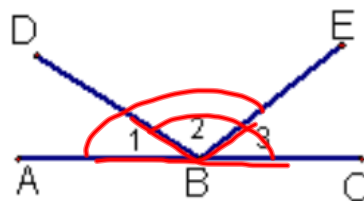
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DO:

Given:  $AC = DF$ ;  $AB = DE$ Prove:  $BC = EF$ 

Statements	Reasons
	① Given
	② Segm + Post
	③ Subst
	④ Subtr.

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~~DO:~~Given:  $m\angle ABE = m\angle DBC$ Prove:  $m\angle 1 = m\angle 3$ 

Statements

Reasons

① $m\angle ABE = m\angle DBC$	① Given
② $m\angle ABE = m\angle 1 + m\angle 2$ $m\angle DBC = m\angle 2 + m\angle 3$	② Angle + Post.
③ $m\angle 1 + m\angle 2 = m\angle 2 + m\angle 3$	③ Subst.
④ $m\angle 2 = m\angle 2$	④ Refl.
⑤ $m\angle 1 = m\angle 3$	⑤ Subtr.

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HW

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